

CORK COUNTY COUNCIL



Winter Service Plan 2022 - 2023 For Roads

A1 Document Control

| Revision | Status | Revision Details | Date |
|----------|--------|------------------|------------------------|
| A | | | 08 November 2022 |
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A2 Introduction

- Cork County Council's Roads and Transportation Directorate is responsible for the maintenance of 391km of National Roads and 11,739km of Regional and Local Roads. This is the largest road network maintained by any local authority in the country.
- The term 'Winter Service' relates to those activities undertaken by Cork County Council to minimise the impact of frost, ice or snow on the travelling public. Winter service is not an emergency service in that low temperatures, frost, ice and snow are frequent and reasonably predictable occurrences.
- This Winter Service Plan provides the framework for dealing with winter weather conditions on the roads and provides for a planned and coordinated response by Cork County Council. The Plan takes cognisance of the guidance and best practices provided by Transport Infrastructure Ireland (TII) in the Winter Service Manual .
- The Winter Service Period is usually from the middle of October to the end of April.
- A review and update of Winter Service Operations is undertaken each year before the start of the next Winter Season.

A3 Policy

- The objective of the winter maintenance programme is to provide so far as is reasonably practical for the safe movement of road users on the National Roads and other strategic routes identified during adverse weather conditions.
- As it not feasible to treat all public thoroughfares, it is necessary to create a schedule of route prioritisation. Routes are designated a priority rating of between 1 and 3 based upon the road classification, the traffic volume carried, public transport usage, and the importance of the route on a national, regional or local level. There is 13% of the National Roads network located in Cork County and these routes are prioritised as Priority 1.
- Priority 1 and Priority 2 routes are normally pre-salted. They receive precautionary treatment, where salt is spread following weather forecasts of expected low temperatures, in order to reduce the likelihood of frost and ice forming on the road. The precautionary treatment is dependent on the salt spreaders performing as specified and completing the routes.
- Priority 3 routes are post-salted as resources allow. This is a response based service where routes are treated during normal working hours if they become

impassable and where resources are available. However, during spells of severe weather every effort will be made to regularly treat Priority 3 routes which service important large industries and otherwise strategically important facilities.

A4 Treatment Route Prioritisation and Level of Service

The priority rating assigned to a route also has an associated stated level of service to be delivered on the route as outlined in the following table :

| Route Designation | Description | Level of Service |
|--------------------------|---|--|
| Priority 1 | Those routes which are essential to be kept serviceable in all weather conditions, as far as reasonably practicable | To be treated during all weather events |
| Priority 2 | Those routes which are desirable to be kept serviceable in normal winter weather conditions, as far as reasonably practicable | To be treated as part of the normal winter service on nights where widespread ice / frost on roads is anticipated. It may have interruptions to treatment in certain severe weather events where efforts need to be concentrated on Priority 1 Routes. |
| Priority 3 | Those routes that could be kept serviceable once Priority 1 and 2 routes have been treated, if resources allow | Not treated as part of the normal winter service but may receive intermittent treatment during certain weather events |

Footpaths and Cycleways

Footpaths, cycleways, and other local roads will be treated in towns, villages and city environs as local resources permit when a prolonged period of snow / icy conditions occur.

Salt and Grit for Community Use

Salt bins and a fill of salt are being offered, for their use, to a limited number of Residents Associations / Community Groups on a shared funding basis. Grit will be made available at multiple locations across the county for use by the community and details of these locations are available on the Council's website

A5 Mobilisation and Treatment Timeframe

The desirable maximum timeframe for the mobilisation and treatment of the priority routes is set out in the following table :

| Treatment Route | Priority 1 | Priority 2 | Priority 3 |
|------------------------|-------------------|-------------------|-------------------|
| Mobilisation Time | 1 hr | 3 hr | When possible |
| Treatment Time | 2.5 hrs | 5 hrs | When possible |

A6 Treatment Routes

The current Priority 1 and Priority 2 routes are listed in the following table :

| Priority | Route No | Location | Length m | Width m | Area m ² |
|----------|----------|--|----------|---------|---------------------|
| 1 | N20 | Charleville to Mallow | 26,500 | 12 | 318,000 |
| 1 | N20 | Mallow slip on and slip off | 600 | 8 | 4,800 |
| 1 | N22 | Kerry County Bounds to Macroom to Start of Ballincollig Bypass at Ovens Bridge | 48,500 | 12 | 582,000 |
| 1 | N25 | End of Midleton dual carriageway to Start of Youghal bypass | 22,900 | 12 | 274,800 |
| 1 | N25 | Start of Youghal bypass to Waterford Boundary | 4,180 | 12 | 50,160 |
| 1 | N25 | Ballyvergan slip off and slip on | 1,100 | 6 | 6,600 |
| 1 | N28 | Shannon Park Roundabout to Ringaskiddy Car Ferry | 5,700 | 12 | 68,400 |
| 1 | N71 | Southern End of Dual Carriageway to Bandon to Pedlar's Cross | 33,400 | 12 | 400,800 |
| 1 | N71 | Pedlars Cross to tunnel at Co. Bounds via Clonakilty, Rosscarbery, Leap, Skibbereen, Ballydehob, Bantry, Ballylickey & Glengarriff | 99,200 | 7.5 | 744,000 |
| 1 | N72 | Rathmore to Mallow (N20) | 42,400 | 8 | 339,200 |
| 1 | N72 | Mallow (N20) to Fermoy Bridge | 31,600 | 8 | 252,800 |
| 1 | N72 | Fermoy Bridge to Tallow. | 20,300 | 9 | 182,700 |
| 1 | N73 | Junction with N72 at Olivers Cross to Mitchelstown North Interchange (M8) | 34,600 | 8 | 276,800 |
| 2 | R513 | Mitch Golf Club Via Main Street to Cloonlough Roundabout | 5,200 | 7 | 36,400 |
| 2 | R515 | Limerick Co. Bdy on Kilmallock Road, through Charleville and westwards through Newtownshandrum and Milford Village to Dromcollogher. | 17,000 | 6 | 102,000 |
| 2 | R522 | Jcn with N20 at Buttevant to Dromcollogher | 23,500 | 6.2 | 145,700 |
| 2 | R522 | Jcn with N20 at Buttevant to Doneraile | 6,600 | 6.2 | 40,920 |
| 2 | R522 | Doneraile to Clogher Cross | 5,400 | 6 | 32,400 |
| 2 | R572 | Glengarriff to Coolieragh | 6,600 | 6 | 39,600 |
| 2 | R572 | Coolieragh to Castletownbere | 27,300 | 6 | 163,800 |
| 2 | R576 | N72 at Bidy's Green to Kerry County Boundary West of Rockchapel | 37,280 | 6.2 | 231,136 |
| 2 | R577 | Ballydesmond through Kiskeam to Boherbue to Clonbannin Cross | 18,400 | 6 | 110,400 |

| Priority | Route No | Location | Length m | Width m | Area m ² |
|----------|----------|--|----------|---------|---------------------|
| 2 | R578 | Newtown Cross to Dromina to Aughrim Cross | 7,400 | 6 | 44,400 |
| 2 | R578 | Aughrim Cross to Freemount | 5,600 | 6 | 33,600 |
| 2 | R578 | Freemount to Newmarket | 11,500 | 6 | 69,000 |
| 2 | R578 | Newmarket to Ballydesmond | 16,580 | 6 | 99,480 |
| 2 | R579 | Kanturk to Freemount | 11,200 | 6 | 67,200 |
| 2 | R579 | Kanturk to Ballymaquirk Cross (N72 junction) | 4,600 | 6 | 27,600 |
| 2 | R579 | Ballymaquirk Cross, Banteer to Nad (South Cork) | 16,700 | 6 | 100,200 |
| 2 | R579 | Garies Cross (R622) to Nad (North Cork Boundary) | 26,170 | 6 | 157,020 |
| 2 | R579 | Sheep Bridge Road (L6842) to Garies Cross (R622) (Treated by Cork City Council) | 630 | 6 | 3,780 |
| 2 | R581 | Turnpike X through Doneraile to Newtwopothouse | 8,100 | 6.2 | 50,220 |
| 2 | R582 | South Boundary (Caherdowney) to Millstreet | 6,290 | 6.2 | 38,998 |
| 2 | R582 | Millstreet to Rathmore | 11,100 | 6 | 66,600 |
| 2 | R582 | Knocknagree to Rathmore | 4,700 | 6 | 28,200 |
| 2 | R582 | Ballydesmond to Knocknagree | 6,700 | 6 | 40,200 |
| 2 | R582 | Macroom to Keim (L5250) | 13,600 | 6 | 81,600 |
| 2 | R583 | Millstreet to Sandpit House | 9,800 | 6.6 | 64,680 |
| 2 | R584 | Ballylickey to Kealkill | 5,000 | 6 | 30,000 |
| 2 | R584 | Kealkill to Inchinossig Bridge, Ballingearry | 17,400 | 6 | 104,400 |
| 2 | R584 | Inchinossig Bridge, Ballingearry to Toon Bridge | 18,660 | 6 | 111,960 |
| 2 | R584 | Toon Bridge to Macroom | 6,100 | 6 | 36,600 |
| 2 | R585 | N22 to Crookstown to Bealnablath to Moneycroha Cross | 13,250 | 6 | 79,500 |
| 2 | R585 | Kealkill to Coppeen to Moneycroha Cross | 33,400 | 6 | 200,400 |
| 2 | R586 | Kealnascarta (N71) to Enniskean | 40,700 | 8 | 325,600 |
| 2 | R587 | Shanlaragh Cross to Dunmanway | 8,300 | 6 | 49,800 |
| 2 | R587 | Glan Cross to Droncarra Bridge (South Cork) | 9,200 | 6 | 55,200 |

| Priority | Route No | Location | Length m | Width m | Area m ² |
|----------|----------|---|----------|---------|---------------------|
| 2 | R587 | Toon Bridge to Droncarra Bridge (West Cork) | 3,200 | 6 | 19,200 |
| 2 | R588 | Clonakilty to Enniskean | 14700 | 6 | 88200 |
| 2 | R588 | Enniskean to Coppeen | 9,500 | 6 | 57,000 |
| 2 | R589 | Bandon to Halfway Roundabout | 15,300 | 6 | 91,800 |
| 2 | R590 | Crookstown to N22 Stage Cross | 900 | 6 | 5,400 |
| 2 | R593 | Drimoleague to Skibbereen | 12,500 | 6 | 75,000 |
| 2 | R594 | Aghaville to Derreeny Cross | 7,900 | 6 | 47,400 |
| 2 | R595 | Skibbereen Town | 2,800 | 6 | 16,800 |
| 2 | R599 | Clonakilty to Dunmanway | 21,000 | 6 | 126,000 |
| 2 | R600 | Five Mile Bridge to Airport Entrance | 4,620 | 6 | 27,720 |
| 2 | R600 | Fivemilebridge to Kinsale | 15,580 | 6 | 93,480 |
| 2 | R605 | Kinsale to Innishannon | 13,520 | 6 | 81,120 |
| 2 | R610 | Rochestown to Passage West to Monkstown to N28 | 7,734 | 6 | 46,404 |
| 2 | R611 | Shannon Park Roundabout to Carrigaline to Kilmoney Road Upper | 3,840 | 6 | 23,040 |
| 2 | R612 | Carrigaline to Crosshaven | 8,400 | 6 | 50,400 |
| 2 | R612 | Crosshaven to Inchigeelagh | 2,500 | 6 | 15,000 |
| 2 | R612 | Fountinstown to Frenchfurze Cross | 5,800 | 6 | 34,800 |
| 2 | R613 | Ringaskiddy Car Ferry to Fivemmilebridge | 14,200 | 6 | 85,200 |
| 2 | R613 | Fivemilebridge to Ballinhassig | 3,800 | 6 | 22,800 |
| 2 | R618 | Macroom to Coachford to Inniscarra Road | 26,000 | 6 | 156,000 |
| 2 | R619 | Farnanes to Coachford | 9200 | 6 | 55,200 |
| 2 | R619 | Coachford to Crean's Cross | 8,400 | 6 | 50,400 |
| 2 | R619 | Crean's Cross to Donoughmore to North Boundary | 7,000 | 6 | 42,000 |
| 2 | R619 | Mallow Bridge to Newberry Cross | 4,360 | 9 | 39,240 |
| 2 | R619 | Drommahane to Newberry Cross | 1,900 | 6 | 11,400 |
| 2 | R619 | Drommahane to Bweeng to South Boundary | 10,740 | 6 | 6,440 |

| Priority | Route No | Location | Length m | Width m | Area m ² |
|----------|----------|--|----------|---------|---------------------|
| 2 | R620 | Mallow Bridge to Quartertown Upper | 3,200 | 8 | 25,600 |
| 2 | R620 | Quartertown Upper to Drommahane | 2,900 | 6 | 17,400 |
| 2 | R621 | Junction with N72 to Newberry Cross R619 (Mallow Environs) | 1,720 | 8 | 13,760 |
| 2 | R622 | Cannon's Cross to Garies Cross | 1,900 | 6 | 11,400 |
| 2 | R623 | Little Island | 3300 | 6 | 19800 |
| 2 | R624 | Cobh to Fota Isl. to N20 | 12,300 | 6 | 73,800 |
| 2 | R629 | Cloyne to Ballinacurra | 6,000 | 6 | 36,000 |
| 2 | R630 | Midleton to Whitegate | 14,100 | 6 | 84,600 |
| 2 | R631 | Rostellen to Cloyne | 3,220 | 6 | 19,320 |
| 2 | R634 | Youghal Town | 2,500 | 6 | 15,000 |
| 2 | R637 | Manch West to Bunanumera Cross | 1,100 | 6 | 6,600 |
| 2 | R638 | Junction with N20 to Junction with R619 Clyda Bridge Lower (Mallow Environs) | 2,340 | 8 | 18,720 |
| 2 | R639 | Glanmire North Interchange to Watergrassshill | 6,900 | 6 | 41,400 |
| 2 | R639 | County Bounds at Kilbeheny to Carrigane Roundabout | 1,170 | 8 | 9,360 |
| 2 | R639 | Mitchelstown to Fermoy | 15,440 | 12 | 185,280 |
| 2 | R639 | Fermoy to Watergrasshill (South Cork Boundary) | 17,120 | 12 | 205,440 |
| 2 | R665 | Mitchelstown, N73 Roundabout to Junction with R513 near Tesco | 1,600 | 6.2 | 9,920 |
| 2 | R665 | Clonmel Rd, Mitchelstown | 5,200 | 6 | 31,200 |
| 2 | R667 | Killworth | 3,200 | 6 | 19,200 |
| 2 | R800 | Clonakilty Town | 1,800 | 6 | 10,800 |
| 2 | R883 | Main Street, (Davis Street), Mallow | 740 | 7 | 5,180 |
| 2 | R930 | Beecher Street and Shortcastle Street, Mallow | 740 | 6 | 4,440 |
| 2 | L1019 | Newmarket to Long Bridge | 3,730 | 6 | 22,380 |
| 2 | L1033 | Long Bridge to Ballyhoolahan Cross | 3,080 | 6 | 18,480 |
| 2 | L1108 | Boherboy School Road | 400 | 6 | 2,400 |

| Priority | Route No | Location | Length m | Width m | Area m ² |
|----------|----------|--|----------|---------|---------------------|
| 2 | L1109 | Boherboy to Ballyhoolahan Cross | 1,800 | 6 | 10,800 |
| 2 | L1115 | Millstreet to Railway Station | 2,200 | 6 | 13,200 |
| 2 | L1203 | Mallow, Kennel Hill | 600 | 6 | 3,600 |
| 2 | L1207 | Mallow, Fair Street | 820 | 6 | 4,920 |
| 2 | L1207 | Mallow, Ironmine Bridge Road | 1,400 | 6 | 8,400 |
| 2 | L1213 | Bweeng School Road | 1,800 | 6 | 10,800 |
| 2 | L1220 | St Joesph's Road to Olivers Cross | 2300 | 6 | 13,800 |
| 2 | L1223 | Mallow Bridge to Ballyellis | 1,800 | 6 | 10,800 |
| 2 | L1238 | Mallow, Bowling Green | 530 | 6 | 3,180 |
| 2 | L1237 | Batchelor's Walk | 600 | 6 | 3,600 |
| 2 | L1239 | Mallow, Lisheen Row | 240 | 6 | 1,440 |
| 2 | L1240 | Mallow, O'Brien Street, | 430 | 6 | 2,580 |
| 2 | L1246 | Mallow, Spaglen | 810 | 6 | 4,860 |
| 2 | | Mallow Hospital | 700 | 6 | 4,200 |
| 2 | | Mallow Medical Center / SouthDoc | 700 | 6 | 4,200 |
| 2 | L1317 | Charleville, Railway Road | 1,700 | 6 | 10,200 |
| 2 | L1417 | Killworth | 1,100 | 6 | 6,600 |
| 2 | L1418 | Mitchelstown, Brigown Road to Overbridge | 1,500 | 6 | 9,000 |
| 2 | L1428 | Mitchelstown, Mulberry Road | 1,100 | 6 | 6,600 |
| 2 | L1429 | Mitchelstown, Chapel Hill to Church Road | 700 | 6 | 4,200 |
| 2 | L1430 | Mitchelstown, Convent Hill | 100 | 6 | 600 |
| 2 | L1434 | Mitchelstown, Robert Street | 300 | 6 | 1,800 |
| 2 | L1435 | Mitchelstown, James Street | 300 | 6 | 1,800 |
| 2 | L1436 | Mitchelstown, King Street | 200 | 6 | 1,200 |
| 2 | L1437 | Mitchelstown, Baldwin Street | 140 | 6 | 840 |
| 2 | L1440 | Mitchelstown, Georges Street | 560 | 6 | 3,360 |

| Priority | Route No | Location | Length m | Width m | Area m ² |
|----------|----------|---|----------|---------|---------------------|
| 2 | L1441 | Mitchelstown, Barrack Street | 850 | 6 | 5,100 |
| 2 | L1443/4 | Mitchelstown, New Market Square | 300 | 6 | 1,800 |
| 2 | L1449 | Fermoy, Richmond Hill | 400 | 6 | 2,400 |
| 2 | L1511 | Fermoy, Duntaheen Road to Glenabo Bridge | 1,500 | 6 | 9,000 |
| 2 | L1515 | Fermoy, Collage Road | 2,000 | 6 | 12,000 |
| 2 | L1541 | Fermoy, Kevin Barry Hill | 250 | 6 | 1,500 |
| 2 | L1542 | Fermoy, Link Road (Duntahane Distributor Road) | 1,200 | 6 | 7,200 |
| 2 | L1524 | Watergrasshill | 400 | 6 | 2,400 |
| 2 | L2002 | Lissarda - Killmurry | 1,700 | 6 | 10,200 |
| 2 | L2216 | Greenfields Interchange to Kilumney Road | 3,200 | 6 | 19,200 |
| 2 | L2260 | Classes Link Road | 500 | 6 | 3,000 |
| 2 | L2464 | Carrigaline to Ballinrea Cross to Board of Works Road | 2,522 | 6 | 15,132 |
| 2 | L2475 | Church Hill, Passage West | 200 | 6 | 1,200 |
| 2 | L2476 | Church Hill, Passage West | 340 | 6 | 2,040 |
| 2 | L2495 | Church Hill, Carrigaline | 330 | 6 | 1,980 |
| 2 | L2496 | Currabinny Road (R613 to GSK Entrance) | 1,600 | 6 | 9,600 |
| 2 | L2547 | Carrigaline Bridge to Crosshaven Road Roundabout | 300 | 6 | 1,800 |
| 2 | L2964 | Watergrasshill | 350 | 6 | 2,100 |
| 2 | L2970 | Glanmire to Caherlag Road | 600 | 6 | 3,600 |
| 2 | L2989 | Cobh Back Road | 5,900 | 6 | 35,400 |
| 2 | L2998 | Glanmire Bridge to Burys Bridge | 2,000 | 6 | 12,000 |
| 2 | L3011 | Watergrasshill | 680 | 6 | 4,080 |
| 2 | L3012 | Watergrasshill | 490 | 6 | 2,940 |
| 2 | L3409 | Ballymakeery to Clondrohid to Macroom/Millstreet Road | 11,400 | 6 | 68,400 |
| 2 | L3418 | Macroom to Ballinagree | 8,500 | 6 | 51,000 |
| 2 | L3422 | Nutricia Foods Road | 2,800 | 6 | 16,800 |

| Priority | Route No | Location | Length m | Width m | Area m ² |
|----------|----------|---|----------|---------|---------------------|
| 2 | L3810 | Cork Hill, Youghal | 2,800 | 6 | 16,800 |
| 2 | L4032 | N71 at Grillagh Cross to Technology Park entrance | 50 | 5 | 250 |
| 2 | L4211 | Skibbereen to Ballyhilty Bridge | 2,300 | 6 | 13,800 |
| 2 | L4212 | Ballyhilty Bridge to The Bog Cross | 1,030 | 6 | 6,180 |
| 2 | L4213 | Ballyhilty Bridge to Bunalunn (R593) | 1,270 | 6 | 7,620 |
| 2 | L4609 | Dunmanway to Derragh Bridge | 9,200 | 6 | 55,200 |
| 2 | L4617 | Cat Lane, Dunmanway | 350 | 6 | 2,100 |
| 2 | L4620 | Quarry Road, Dunmanway | 750 | 6 | 4,500 |
| 2 | L4633 | Bunanumera Cross south to L4632 / L4633 Cross | 450 | 5 | 2,250 |
| 2 | L4754 | Wolfe Tone Square to Bantry Library via New St. & Bridge St. | 260 | 4 | 1,040 |
| 2 | L4752 | Bantry Library to Hospital Cross | 355 | 4.8 | 1,704 |
| 2 | L4753 | Bantry Library to Wolfe Tone Sq. via Chapel St. & William St. | 300 | 4 | 1,200 |
| 2 | L4716 | Hospital Cross to Keyes Terrace | 535 | 4.8 | 2,568 |
| 2 | L4727 | Council Depo to Wolfe Tone Square | 200 | 6 | 1,200 |
| 2 | L6501 | Pipers Cross to Bothar Buidhe Cross | 870 | 6 | 5,220 |
| 2 | L6506 | Ferney Road | 650 | 6 | 3,900 |
| 2 | L6517 | Ringaskiddy to Loughbeg (DuPuy & Pfizer Entrances) | 2,000 | 6 | 12,000 |
| 2 | L6524 | Inchigeelagh Road, Crosshaven | 700 | 6 | 4,200 |
| 2 | L6730 | Maulbawn Spine Road, Passage West | 430 | 6 | 2,580 |
| 2 | L6723 | The Meadows Spine Road, Passage West | 280 | 6 | 1,680 |
| 2 | L6854 | Coachford Community School Road | 320 | 6 | 1,920 |
| 2 | L7300 | Kilnagleary Link Road (Roundabout to R612) | 530 | 6 | 3,180 |
| 2 | L8570 | Kilbarry Road, Dunmanway | 360 | 6 | 2,130 |
| 2 | L8632 | L4632 / L4633 Cross to Randal Og GAA Entrance | 220 | 4.8 | 1,056 |
| 2 | L8633 | Randal Og GAA Entrance north to L4633 Junction | 300 | 4.8 | 1,440 |
| 2 | L9212 | Fermoy, St. Colman's Hill | 200 | 6 | 1,200 |

A8 Equipment - Salt Spreaders and Snow Ploughs

The main salt spreading equipment and snow ploughs available for winter maintenance are listed in the following table :

| Depot | Salt Spreaders No. | Type | Capacity m ³ | Speed Related Spreading (Y/N) | Snow Plough Attachment (Y/N) |
|---------------------------|--------------------|-------------|-------------------------|-------------------------------|------------------------------|
| Newberry (Mallow) | 3 | Fixed | 6 | Y | Y(1) |
| Newberry (Mitchelstown) | 1 | Fixed | 6 | Y | Y |
| Fermoy | 1 | Fixed | 6 | Y | Y |
| Millstreet | 1 | Fixed | 7 | Y | Y |
| Newberry (Newmarket) | 1 | Fixed | 10 | Y | Y |
| Newberry (Charleville) | 1 | Fixed | 6 | Y | N |
| Newmarket | 1 | Fixed | 2 | Y | N |
| Glanmire | 1 | Demountable | 6 | Y | Y |
| Glanmire | 1 | Demountable | 9 | Y | Y |
| Ballincollig | 3 | Demountable | 6 | Y | Y(2) |
| Ballincollig | 1 | Fixed | 7 | Y | Y |
| Macroom | 1 | Fixed | 10 | Y | Y |
| Macroom | 1 | Fixed | 7 | Y | N |
| Macroom (Stage Cross) | 1 | Demountable | 2 | Y | N |
| Glanmire | 1 | Demountable | 2 | Y | N |
| Glanmire (Midleton) | 1 | Demountable | 2 | Y | N |
| Carrigaline | 1 | Demountable | 2 | Y | N |
| Bandon | 1 | Demountable | 2 | Y | N |
| Ballincollig (Macroom) | 1 | Demountable | 2 | Y | N |
| Machinery Yard Skibbereen | 2 | Demountable | 6 | Y | Y(1) |
| Machinery Yard Skibbereen | 1 | Fixed | 7 | Y | Y |
| Bantry | 1 | Demountable | 6 | Y | Y |
| Dunmanway | 1 | Fixed | 10 | Y | Y |
| Skibbereen | 1 | Demountable | 2 | Y | N |
| Dunmanway | 1 | Demountable | 2 | Y | N |
| Clonakilty | 1 | Demountable | 2 | Y | N |
| Bantry | 1 | Demountable | 1 | N | N |
| Castletownbere | 1 | Demountable | 2 | N | N |
| Schull | 1 | Demountable | 1 | N | N |

A9 Salt Storage Capacity

The salt for winter maintenance is now purchased and supplied by Transport Infrastructure Ireland through a framework agreement for the supply of de-icing materials.

The main salt storage depots are listed in the following table :

| Depot No. | Address | Capacity (Tonnes) |
|------------------------|---------------------------------------|-------------------|
| 1 | Salt Barn - Newberry, Mallow | 2,000 |
| 2 | Fermoy | 300 |
| 3 | Mitchelstown | 60 |
| 4 | Millstreet | 250 |
| 5 | Newmarket | 160 |
| 6 | Charleville | 30 |
| 7 | Salt Barn - Innishmore, Ballincollig | 1,250 |
| 8 | Salt Barn - Glanmire | 1,250 |
| 9 | Midleton | 30 |
| 10 | Carrigaline | 30 |
| 11 | Bandon | 30 |
| 12 | Macroom Yard Depot, Macroom Town | 100 |
| 13 | Salt Barn – Skibbereen Machinery Yard | 1,250 |
| 14 | Kilbarry Road, Dunmanway | 150 |
| 15 | Bantry Town | 60 |
| 16 | Castletownbere | 60 |
| 17 | Clonakilty | 15 |
| 18 | Schull | 15 |
| Total Storage Capacity | | 7,040 |

A10 Rosters

Rosters have been prepared & distributed to relevant personnel involved with the delivery of winter service operations.

The Duty Engineer in each Region is available 24/7 during the period rostered.

All Duty Engineers receive training from Vaisala regarding decision making using the Vaisala Manager system.

The Vaisala Manager website is updated early each afternoon with information from Met Eireann and road condition sensors from the various sites throughout the country. The website includes a 24 hour and a 2-5 day text forecast which gives an initial indication if ice is expected. The site contains a graph index for various weather station sites which gives a forecast road surface state and forecast weather conditions up until 12pm the following day. The graph index is updated continuously to show current surface state and weather conditions at the site. Many of the weather stations are now fitted with on line cameras. The Priority 1 and Priority 2 routes in Cork are thermally mapped accurately reflecting variations in road temperatures.

The Duty Engineer monitors the short to medium term general forecast and checks the Vaisala Manager website every afternoon during the rostered period to determine if roads require treatment. Often it may be necessary to continue to monitor the conditions before making the final decision.

If treatment is required, the Duty Engineer instructs the Plant Supervisors in relation to roads that require treatment and relays information to the Municipal District Engineers and others regarding the roads to be treated in their areas. The Duty Engineer ensures that sufficient medium-term forecast information is available to allow for adequate salt stocks during a prolonged cold spell.

The Duty Engineer may on occasion receive update phone or text information from Met Eireann in relation to changing weather information.

A11 Decision Matrix

Decision matrix for the Duty Engineer

| Road Surface Temperature | Precipitation | Predicted Road Conditions | | |
|--|--|--|--------------------------------|--|
| | | Wet | Wet Patches | Dry |
| Expected to fall below 1°C | No rain No hoar frost No fog | Salt before frost | Salt before frost (see note a) | No action likely, monitor weather (see note a) |
| | Expected hoar frost Expected fog | | Salt before frost (see note b) | |
| | Expected rain before freezing | Salt after rain stops (see note c) | | |
| | Expected rain during freezing | Salt before frost, as required during rain and after rain stops (see note d) | | |
| | Possible rain Possible hoar frost Possible fog | Salt before frost | | Monitor weather conditions |
| Expected Snow | | Salt before snow fall | | |
| The decision to undertake precautionary treatments will be, if appropriate, adjusted to take account of residual salt, surface moisture or prevailing weather conditions (precipitation). All decisions should be evidence based, recorded and require careful monitoring and review. | | | | |

Notes:

- (a) Particular attention should be given to the possibility of water running across carriageways and other running surfaces e.g. surface water off adjacent fields after heavy rains, washing off salt previously deposited. Such locations should be closely monitored and may require treating in the evening and morning and possible other occasions. Ideally the source of the run-off from adjacent properties should be diverted from the roadway by the landowner.

- (b) When a weather warning contains reference to expected hoar frost, considerable deposits of frost can occur. Hoar frost usually occurs in the early morning and is difficult to cater for because of the probability that any salt deposited on a dry road too soon before its onset, may be dispersed before it can become effective. Careful monitoring is required under this forecast condition which should ideally be treated just as the hoar frost is forming. Such action is usually not practicable and salt may have to be deposited on a dry road prior to but as close as possible to the expected time of the condition. Hoar frost may also be forecast at other times of the day, in which case the timing of salting operations should be adjusted accordingly.
- (c) If under these conditions, rain has not ceased by early morning, crews should be called out and action initiated as rain ceases.
- (d) Under these circumstances rain will freeze on contact with running surfaces and full precautionary treatment should be provided even on dry roads. This is a most serious condition and should be monitored closely and carefully throughout the danger period.

A12 Treatment Matrix

Treatment Matrix Guide for Dry Unmodified Salt

| Weather Conditions Road Surface Conditions Road Surface Temperature (RST) | Treatment Air Temperature | Salt Spread Rate (gm/m ²) | Ploughing |
|--|------------------------------|--|--------------|
| Frost or forecast frost RST at or above -2°C | | 10 Also refer to Note (b) | No |
| Frost or forecast frost RST below -2°C and above -5°C depending on resources | | 10-20 | No |
| Frost or forecast frost RST below -5°C and above -10°C and dry or damp road conditions | | 20 | No |
| Frost or forecast frost RST below -5°C and above -10°C and wet road conditions (existing or anticipated) | | 2 runs X 20 | No |
| Light snow forecast (<10mm) | | 20 | No |
| Forecast for Medium/heavy snow or a freezing rain forecast | | 2 runs X 20 | No |
| Ice formed | Above -5°C | 20 | Not possible |
| Ice formed | At or below -5°C | 2 runs X 20 | Not possible |
| Snow covering exceeding 30mm | | 20 to supplement ploughing, up to 40 if temperatures are falling | Required |

| Weather Conditions Road Surface Conditions Road Surface Temperature (RST) | Treatment Air Temperature | Salt Spread Rate (gm/m ²) | Ploughing |
|---|------------------------------|---|--------------|
| Snow accumulations due to prolonged falls | | 20 to 40 to supplement ploughing | Required |
| Hard packed snow/ice | Above -8°C | Successive treatments at 20 to 40 (repeat as needed) | Not possible |
| Hard packed snow/ice | At or below -8°C | Successive treatments at 20 to 40, supplemented by abrasives (repeat as needed) | Not possible |

Notes:

- (a) Rate of spread for precautionary treatments may be adjusted to take account of variations occurring along the route such as residual salt, surface moisture (in the air or on the road surface) and traffic density.
- (b) For salt stored outside, it may be necessary to increase the spread rate for precautionary treatment salting from 10gm/m² to 15-20gm/m².
- (c) All decisions should be forecast based, recorded and require careful monitoring and review.
- (d) Ice refers to all ice on the road surface, including black ice.
- (e) For the Winter Season 2020-2021, Cork County Council utilised a brine plant, based in the Machinery yard at Newberry, Mallow, to trial the solution on priority routes during winter maintenance. This involves pre-wetting the roads with a brine solution to improve the effectiveness of winter maintenance operation. It is intended to continue the pilot for the Winter Season 2021-2022.

Target Spread Rates by Location

| Location | Salt Spread Rate |
|--|--|
| Carriageways | As described in the Treatment Matrix Guide |
| Hard shoulder or carriageway marginal strips | 50% of selected treatment |
| Porous Surfacing | <u>Plus</u> 25% of selected treatment |
| Footways, cycle tracks and pedestrian areas | 25 gm/m ² |

A18 Service Limitations

Despite the resources that are applied to providing the winter service, ice-free roads cannot be guaranteed. The motorist should remember the following:

- In Ireland there are a high risk proportion of marginal nights when temperatures are very close to zero. This makes it more difficult to accurately predict frost than in colder countries. As a consequence, Met Eireann can only guarantee 80% accuracy in their forecasts.
- It can take up to 5 hours to salt a route, so any journey may start or end on an untreated section of the route.
- In heavy rain, salt can be washed away and the wet surface may subsequently freeze if the temperature falls below zero.
- In cases of extended severe weather events, the network salted may need to be reduced to Priority 1 routes.

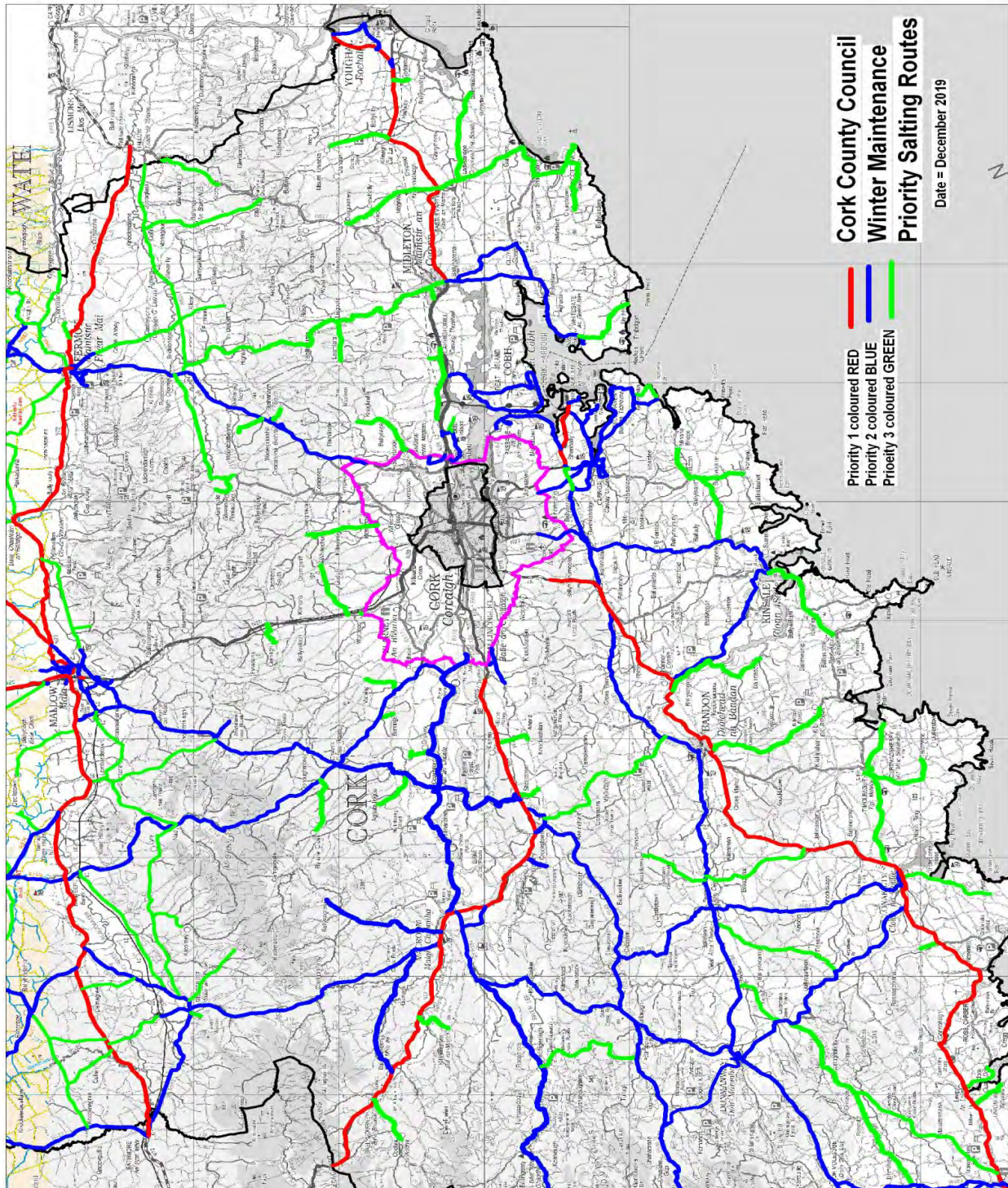
A13 Communication

The winter service provision will be communicated to the general public through the Cork County Council website in order to ensure that –

- Service expectations are realistic.
- To reinforce the message that the primary responsibility for safety rests with the road user even when routes are treated.
- To bring to the attention of the public, as stated in the information leaflet published by Transport Infrastructure Ireland titled 'Safe Winter Driving', that the **"SPREADING OF SALT DOES NOT MEAN THAT THE ROAD SURFACE WILL NECESSARILY BE ICE-FREE. IN FREEZING CONDITIONS, ALWAYS DRIVE WITH GREAT CARE EVEN IF THE ROAD HAS BEEN SALTED!"**
- In severe weather conditions non-essential travel should be avoided and public transport used where possible.

Out of hours emergency contact number is 021 – 480 0048.

Appendix B – South Cork & Bandon/Kinsale MD Priority Routes Map



Appendix C – West Cork Municipal District Priority Routes Map

